

REMARKS

I. Introduction

Claims 1-38 are pending in the application. In a September 22, 2005, Office Action (hereinafter "Office Action"), Claims 1-3, 5-9, 11, 12, 14-19, 21-24, 26-31, 34, and 36-38 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,374,252, issued to Althoff et al. (herein "Althoff et al.") in view of U.S. Patent No. 5,784,037, issued to Inoue (herein "Inoue"). Claims 4, 10, 13, 20, 25, 32, 33, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Althoff et al. in view of Inoue and further in view of U.S. Patent No. 6,499,062 to Shteyn (herein "Shteyn").

For the following reasons, applicant respectfully submits that the rejected claims of the present application are patentable over the various combinations of Althoff et al., Inoue, and Shteyn, because the cited and applied references, alone or in combination, fail to teach or suggest each of the limitations recited with regard to independent Claims 1, 17 and 29. Prior to discussing more detailed reasons why applicant believes that all the claims of the present invention are allowable, a brief description of the present invention and the cited references are presented.

A. Summary of the Present Invention

The present application is directed to a method and system for processing object property changes. In accordance with an illustrative embodiment of the present invention, a computer system receives a request to process at least one object property. The computer system begins a property change defer cycle that allows for the grouping of the specific object property change into one or more object property change groups. In the event the object property change creates additional property changes or additional property change requests are received during the property change defer cycle, the additional property changes are grouped into object property

change groups. Upon completion of the property change defer cycle, the object property groupings are implemented.

Numerous advantages may be realized by the system or method recited in the claims of the present application. In one aspect, the property change defer cycle facilitates the grouping of property changes. Accordingly, the computer system mitigates sequential display object property changes related to the change of a display object property. Additional advantages may also be realized within the present invention.

B. U.S. Patent No. 6,374,525 to Althoff et al.

Althoff et al. is purportedly directed toward a method and system for compiling and translating between object-oriented database structures and relational database structures. Generally described, Althoff et al. describes three functions for the interaction between an object-oriented database and a relational database: 1) creating, editing or manipulating an object database and its corresponding translation to the relational database; 2) creating, editing or manipulating objects within the object database and its corresponding translation to the relational database; or 3) creating, editing, or manipulating queries for the object database and its corresponding translation to the relational database.

Althoff et al., however, does not teach or suggest a system or method for processing property group changes. Specifically, Althoff et al. fails to teach or suggest processing a received display object property change during a property change defer cycle.

C. U.S. Patent No. 6,499,062 to Shteyn

Shteyn is purportedly directed toward various components for representing information processing system controls via software objects. Shteyn teaches the use of two-way programmable routes to facilitate the modification of additional software object properties upon

the modification of a target software object property. Shteyn fails to teach or suggest entering one or more property change defer cycles to process display object property changes.

D. U.S. Patent No. 5,784,037 to Inoue

Inoue is purportedly directed toward a display system in which the image display can be totally controlled in accordance with various display modes. Inoue teaches that a graphics controller communicates with various devices in a computer system in order to switch a display between various modes. For example, a display can be switched from VGA mode to EGA mode. Inoue, however, does not teach or suggest a system or method for processing property group changes. Specifically, Inoue fails to teach or suggest processing a received display object property change during a property change defer cycle.

II. The Claims Distinguished

A. Claim 1

Claim 1 reads as follows:

1. A method for processing display object property changes, the method comprising:

obtaining a request to process at least one display object property change, the request corresponding to a software application object;

initiating a property change defer cycle;

processing the at least one object property change;

determining the end of the property change defer cycle; and

implementing the processed at least one display object property change upon the determination of the end of the property change defer cycle.

As described above, Claim 1 recites a method for processing display object property changes. Claim 1 specifically recites "obtaining a request to process at least one display object property change" and "initiating a property change defer cycle." Claim 1 further recites "processing the at least one display object property change" during the property change defer

cycle and "implementing the processed at least one display object property change upon the determination of the end of the property change defer cycle." By initiating a property change defer cycle upon receipt of a display object property change request, the method facilitates the grouping of any additional or subsequent display object property group changes processed during the property change defer cycle prior to implementation of the display object property change.

With regard to Claim 1, the Office Action asserts that Althoff et al. discloses the elements recited in Claim 1 through a description of the building and editing of an object database model (Figure 6, Col. 21, lines 12-21). Specifically, the Office Action asserts that Althoff et al. teaches a "transaction begin" and "transaction end" command that collects and commits user changes to a database model. The Office Action states that the teaching of the "transaction begin" and "transaction end" commands are equivalent to the property change defer cycle recited in Claim 1. The Office Action further states that the teaching of the commitment of the database entries upon completion of the "transaction end" command is equivalent to the implementation of the display object change. As will be discussed in more detail below, applicant respectfully disagrees with these assertions.

Applicant agrees with the Office Action that Althoff et al. fails to teach "processing display object property changes." *See* Office Action, p. 3. However, the Office Action asserts that Inoue teaches "requesting and processing property changes for a display object," and further asserts that it would have been obvious to combine the teachings of Althoff et al. and Inoue. For the following reasons, applicant respectfully disagrees.

Althoff et al. is limited to teaching an interface between an object-oriented database and a relational database. The portion of Althoff et al. relied upon by the Office Action to reject Claim 1 is a data entry step for a routine for building a data model of an object oriented database. (Col. 21, lines 8-11). In this regard, Althoff et al. teaches the collection of database object

entries (either the creation of new objects or the editing of an existing object). The database entries are subsequently made to the data model upon completion of the data collection command. "[A]ll changes to the user database model 230 or to the relational database 250 are *collected*, and committed in one atomic operation when the user 201 invokes the "transaction end" command." (Col. 21, lines 16-20) (emphasis added). Thus, applicant does not agree that Althoff et al. teaches entering a property change defer cycle or the implementation of the processed display object changes. Further, as admitted in the Office Action, Althoff et al. does not teach or suggest "processing display object property changes." However, as discussed above, the Office Action asserts that Inoue teaches "requesting and processing property changes for a display object," and further asserts that the combination of Althoff et al. and Inoue would have obvious to teach each of the elements of Claim 1.

Althoff et al. and Inoue, Alone or in Combination,
Fail to Teach or Suggest Each Element of Claim 1

As discussed above, Inoue is directed to a system for changing the mode of a display. In contrast to the present application, and Claim 1 in particular, Inoue does not teach processing at least one display object property change. Rather, Inoue teaches that a graphics controller communicates with a display unit controller in order to switch the mode of the display. Col. 7, line 55-Col. 8, line 51. Inoue further teaches that an example of display-mode switching is resetting a display from VGA mode to EGA mode. Col. 3, lines 54-56. Although Inoue teaches that the graphics controller sends "display mode change request data," it does not teach that the data changes at least one display object property as recited in Claim 1. Rather, instead of changing an attribute of a software object, the "display mode change request data" is recognized by the display unit controller which in turn sets a signaling line. Col. 8, lines 1-3. Thus, clearly

Inoue does not teach "processing at least one display object property change" as recited in Claim 1.

To establish a *prima facie* case of obviousness, three criteria must be met: (1) there must be some suggestion or motivation to modify the reference or to combine the referenced teachings (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all the claim limitations. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

In light of the above, applicant asserts that Althoff et al. and Inoue, alone or in combination, fail to disclose, teach, or suggest "processing at least one display object property change" as recited in Claim 1. For at least this reason, applicant asserts that the Office Action failed to establish a proper *prima facie* case of obviousness with regard to the rejection of Claim 1.

No Motivation or Suggestion to combine Althoff et al. and Inoue

Even if the combination of Althoff et al. and Inoue would teach the recited claims, of which applicant strongly disagrees, applicant further asserts that Althoff et al. and Inoue are not combinable. As discussed above Althoff et al. purportedly discloses a method and system for compiling and translating between object-oriented database structures and relational database structures. In contrast to Althoff et al., Inoue purportedly discloses a display system in which an image display can be controlled in accordance with various display modes. Neither makes mention of the desirability of the other's teachings. In one aspect, the Office Action readily admits that Althoff et al. makes no mention of display object properties. In another aspect, Inoue's teachings of display systems modes would not relate to display object defer cycles. Thus, because neither the Office Action nor the cited references themselves provide a motivation to combine the references, neither Althoff et al. or Inoue, alone or in combination, disclose, teach

or suggest "processing at least one display object property change" during a property change defer cycle as recited in Claim 1.

For the following reasons, applicant submits that Claim 1 is in condition of allowance, and requests that the 35 U.S.C. § 103(a) rejection of this claim be withdrawn, and the claim allowed.

B. Claims 2-16

Claims 2-16 are dependent on Claim 1. As discussed above, Althoff et al. and Inoue, alone or in combination, fail to teach or suggest all of the limitations recited with regard to Claim 1. Accordingly, for the above-mentioned reasons, Claims 2-16 are allowable over the cited art, alone or in combination. In addition, Claims 2-16 further add to the patentability of applicant's invention, the details of which are discussed below.

Dependent Claim 5 adds to the patentability of applicant's invention "associating a property change group category to the at least one object property change." The Office Action asserts that Althoff et al. and Inoue teach this limitation in citing Inoue, Col. 7, lines 50-65 and Althoff et al., Figure 4, block 411. Applicant respectfully submits, however, that the cited portion of Althoff et al. relates to a "Class Object Edit Permission" property which can be inherited by other objects in the data model. (Col. 19, lines 54-62). The cited portion of Althoff et al. in no way relates to the association of a property change group category that is associated with a requested property change group. Further, applicant respectfully submits that the cited portions of Inoue relates to a series of communications between various devices of a computer system. Col. 7, lines 52-54. The cited portion of Inoue in no way relates to the association of a property change group category that is associated with a requested property change group. Accordingly, the cited references, alone or in combination, further fail to teach, or suggest, the additional limitation recited in Claim 5.

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Dependent Claim 6 adds to the patentability of applicant's invention "generating a property change group memory array, the property change group memory array including array elements corresponding to a display object associated with the property change request." Additionally, dependent Claims 7-8 recite further limitations related to the property change group memory array recited in Claim 6. The Office Action asserts that Althoff et al. teaches a property change group array by citing Table 9-2. Applicant respectfully submits, however, the cited portion of Althoff et al. relates to the utilization of an array for returning the contents of multiple database rows for faster processing results. "When large numbers of rows are to be selected from a table, the system attempts to fetch those rows in an array, for faster retrieval." (Col. 28, lines 7-9). The cited portion in no way relates to teaching an array that is used to group property change groups to display objects as recited in the claim. Accordingly, the cited references, alone or in combination, further fail to teach, or suggest, the additional limitations recited in Claims 6-8.

Dependent Claim 10 adds to the patentability of applicant's invention "initiating a second property change defer cycle," processing any additional display property changes corresponding to the implementation of the property changes obtained in the property change request," and determining the end of the second property change defer cycle." Applicant agrees with the Office Action that Althoff et al. fails to teach or suggest the additional limitations recited in Claim 10. However, the Office Action asserts that Shteyn teaches initiating a second property change defer cycle for processing additional display object property changes. Applicant respectfully submits, however, the cited portion of Shteyn relates to a GUI for configuring a control system that includes three user programmable "routes" for configuring different controls. Shteyn in no way teaches or suggests a single property change defer cycle. Accordingly, it could not teach a second, embedded property change defer cycle. Accordingly, the cited references, alone or in combination, further fail to teach, or suggest, the additional limitations recited in

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Claim 10. Dependent Claim 11, which recites additional limitations related to a second property defer cycle, would also be further patentable for the reasons cited with regard to Claim 10.

C. Independent Claim 17

In a manner similar to independent Claim 1, independent Claim 17 recites a method for processing display object property changes. Claim 17 specifically recites:

17. In a computer system having a display, a memory including at least one software application, and an operating environment, a method for processing display object property changes, the method comprising:

obtaining a request from the software application to process at least one object property change corresponding to a display object associated with the software application;

initiating a first property change defer cycle;

associating a property change group category to the at least one object property change;

identifying additional display object property changes corresponding to the implementation of the at least one object property change;

initiating a second property change defer cycle;

processing any additional property changes corresponding to the implementation of the at least one object property change;

determining the end of the second property change defer cycle;

determining the end of the first property change defer cycle; and

implementing the processed property changes upon the determination of the end of the first property change defer cycle.

As stated above with regard to Claims 1 and 10, Althoff et al. and Inoue, alone or in combination, fail to teach or suggest entering into two property change defer cycles in which display object property changes are processed. Althoff et al. is limited to teaching an interface between an object-oriented database and a relational database. Inoue is limited to teaching a display system in which the image display can be controlled in accordance with various display

modes. For these reasons, and the reasons set forth above, applicant respectfully requests a withdrawal of the § 103(a) rejection of Claim 17.

D. Claims 18-28

Claims 18-28 are dependent on Claim 17. As discussed above, Althoff et al. and Inoue, alone or in combination, fail to teach or suggest all of the limitations recited with regard to Claim 17. Accordingly, for the above-mentioned reasons, Claims 18-28 are allowable over the cited art, alone or in combination. In addition, Claims 18-28 further add to the patentability of applicant's invention, the details of which were discussed above with regard to dependent Claims 2-16. For these reasons, applicant respectfully requests a withdrawal of the § 103(a) rejection of Claims 18-28.

E. Independent Claim 29

In a manner similar to independent Claim 1, independent Claim 29 recites a method for processing display object property changes. Claim 29 specifically recites:

29. A method for processing object property changes, the method comprising:

obtaining a request to process at least one object property change, the request corresponding to a software application object;

initiating a first property change defer cycle;

generating a property change group memory array, the property change group memory array including array elements corresponding to an object associated with the property change request.

populating the property change group memory array with a property change group category associated with the at least one object property change;

for each memory array element, identifying additional display object property changes corresponding to the implementation of the at least one object property change;

initiating a second property change defer cycle;

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processing any additional property changes corresponding to the implementation of the at least one object property change;
determining the end of the second property change defer cycle;
determining the end of the first property change defer cycle; and
implementing the processed at least one object property change upon the determination of the end of the first property change defer cycle.

As stated above with regard to Claims 1, 6, and 10, Althoff et al. and Inoue, alone or in combination, fail to teach or suggest entering into two property change defer cycles in which display object property changes are processed. Althoff et al. and Inoue, alone or in combination, further fail to teach the utilization of property change group memory array for grouping display object property group classifications. Althoff et al. is limited to teaching an interface between an object-oriented database and a relational database. Inoue is limited to teaching a display system in which the image display can be controlled in accordance with various display modes. For these reasons, and the reasons, set forth above, applicant respectfully requests a withdrawal of the § 103(a) rejection of Claim 29.

F. Claims 30-38

Claims 30-38 are dependent on Claim 29. As discussed above, Althoff et al. and Inoue, alone or in combination, fail to teach or suggest all of the limitations recited with regard to Claim 29. Accordingly, for the above-mentioned reasons, Claims 30-38 are allowable over the cited art, alone or in combination. In addition, Claims 30-38 further add to the patentability of applicant's invention, the details of which were discussed above with regard to dependent Claims 2-16. For these reasons, applicant respectfully requests a withdrawal of the § 103(a) rejection of Claims 30-38.

CONCLUSION

Based on the above-referenced arguments, applicant respectfully submits that all the claims of the present application, Claims 1-38 are allowable over the cited and applied

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references. Accordingly, applicant respectfully requests withdrawal of all the rejections of the claims of the present invention and allowance of the present application. If any questions remain, applicant requests that the Examiner contact the undersigned at the telephone number listed below.

Respectfully submitted,

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